

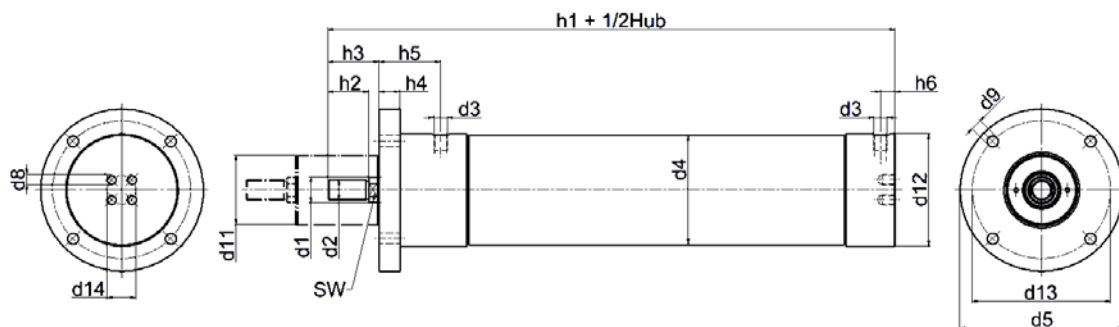
**SERIES 81**  
**Telescopic cylinder**  
**2-level, double effect**



| Technical characteristics        |                                                                                                                                                                                          |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Design type</b>               | Telescopic cylinder                                                                                                                                                                      |
| <b>Function</b>                  | 2-level, double effect                                                                                                                                                                   |
| <b>Piston diameter in mm</b>     | 20/32, 25/40, 30/50, 40/63, 50/80, 63/100                                                                                                                                                |
| <b>Stroke length in mm</b>       | Stroke lengths freely selectable, max. 1,000                                                                                                                                             |
| <b>Pneumatic connection</b>      | G1/8, G1/4                                                                                                                                                                               |
| <b>Installation position</b>     | - Any<br>- Installation without lateral force                                                                                                                                            |
| <b>Speed regulation</b>          | Possible using exhaust air throttling                                                                                                                                                    |
| <b>Temperature range</b>         | -20°C to +80°C                                                                                                                                                                           |
| <b>Materials</b>                 | - Piston rod from stainless steel<br>- Telescopic pipe from aluminium, hard-anodised<br>- Cylinder pipe from aluminium, hard-anodised<br>- Front and end pieces from aluminium, anodised |
| <b>Seals</b>                     | - Perbunan                                                                                                                                                                               |
| <b>Damping</b>                   | End position damping by Vulkollan rings                                                                                                                                                  |
| <b>Other</b>                     | - Customer-specific solutions upon request<br>- Seal kits upon request                                                                                                                   |
| Pneumatic parameters             |                                                                                                                                                                                          |
| <b>Medium</b>                    | Compressed air quality: 2.2.1 compliant with ISO 8573-1<br>(2=particle / 2=dew point / 1=oil concentration)                                                                              |
| <b>Operating pressure in bar</b> | 2 to 8                                                                                                                                                                                   |

## Mounting 57

### Front flange mounting

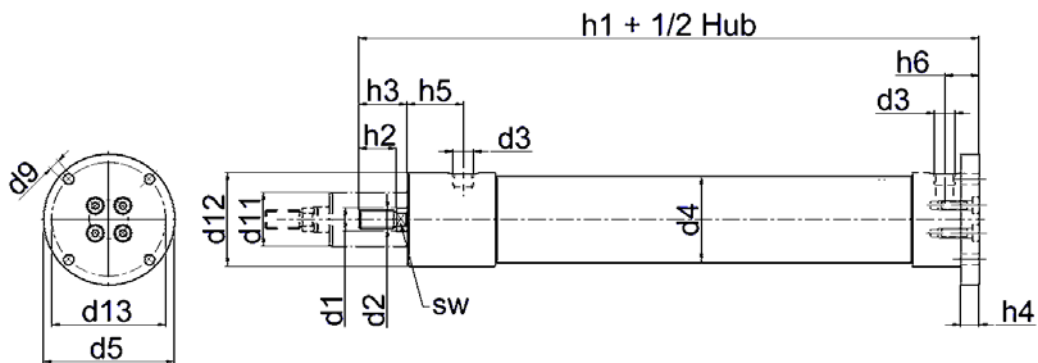


| Piston<br>Ø | Theo.<br>compressive<br>force at 6 bar in<br>N | Theo. tensile<br>force<br>at 6 bar in N | d1<br>Ø | d2      | d3   | d4<br>Ø | d5<br>Ø | d8  | d9<br>Ø | d11<br>Ø | d12<br>Ø | d13<br>Ø | d14<br>Ø |
|-------------|------------------------------------------------|-----------------------------------------|---------|---------|------|---------|---------|-----|---------|----------|----------|----------|----------|
| 20/32       | 165                                            | 125                                     | 10      | M8      | G1/8 | 38      | 69      | M5  | 5.5     | 25       | 45       | 56       | 20       |
| 25/40       | 260                                            | 200                                     | 12      | M10     | G1/8 | 45      | 74      | M6  | 6.6     | 30       | 50       | 63       | 20       |
| 30/50       | 370                                            | 270                                     | 16      | M12     | G1/4 | 55      | 84      | M6  | 6.6     | 35       | 60       | 73       | 25       |
| 40/63       | 660                                            | 500                                     | 20      | M16x1.5 | G1/4 | 68      | 109     | M6  | 6.6     | 45       | 74       | 87       | 25       |
| 50/80       | 1040                                           | 870                                     | 20      | M16x1.5 | G1/4 | 86      | 129     | M8  | 9       | 55       | 91       | 107      | 35       |
| 63/100      | 1650                                           | 1400                                    | 25      | M20x1.5 | G1/4 | 107     | 159     | M10 | 11      | 68       | 110      | 135      | 28       |

| Piston<br>Ø | h1    | h2 | h3 | h4 | h5 | h6 | SW |
|-------------|-------|----|----|----|----|----|----|
| 20/32       | 107   | 16 | 23 | 10 | 22 | 11 | 8  |
| 25/40       | 121.5 | 20 | 27 | 12 | 34 | 11 | 10 |
| 30/50       | 139   | 24 | 31 | 12 | 36 | 14 | 13 |
| 40/63       | 170   | 32 | 41 | 12 | 46 | 14 | 17 |
| 50/80       | 180.5 | 32 | 41 | 12 | 51 | 15 | 17 |
| 63/100      | 203   | 40 | 50 | 20 | 60 | 14 | 21 |

## Mounting 56

### Rear flange mounting



| Piston $\emptyset$ | Theo. compressive force at 6 bar in N | Theo. tensile force at 6 bar in N | d1 $\emptyset$ | d2      | d3   | d4 $\emptyset$ | d5 $\emptyset$ | d9 $\emptyset$ | d11 $\emptyset$ | d12 $\emptyset$ | d13 $\emptyset$ |
|--------------------|---------------------------------------|-----------------------------------|----------------|---------|------|----------------|----------------|----------------|-----------------|-----------------|-----------------|
| 20/32              | 165                                   | 125                               | 10             | M8      | G1/8 | 38             | 69             | 5.5            | 25              | 45              | 56              |
| 25/40              | 260                                   | 200                               | 12             | M10     | G1/8 | 45             | 74             | 6.6            | 30              | 50              | 63              |
| 30/50              | 370                                   | 270                               | 16             | M12     | G1/4 | 55             | 84             | 6.6            | 35              | 60              | 73              |
| 40/63              | 660                                   | 500                               | 20             | M16x1.5 | G1/4 | 68             | 109            | 6.6            | 45              | 74              | 87              |
| 50/80              | 1040                                  | 870                               | 20             | M16x1.5 | G1/4 | 86             | 129            | 9              | 55              | 91              | 107             |
| 63/100             | 1650                                  | 1400                              | 25             | M20x1.5 | G1/4 | 107            | 159            | 11             | 68              | 110             | 135             |

| Piston $\emptyset$ | h1    | h2 | h3 | h4 | h5 | h6 | SW |
|--------------------|-------|----|----|----|----|----|----|
| 20/32              | 114   | 16 | 23 | 10 | 22 | 18 | 8  |
| 25/40              | 130.5 | 20 | 27 | 12 | 34 | 20 | 10 |
| 30/50              | 147   | 24 | 31 | 12 | 36 | 22 | 13 |
| 40/63              | 178   | 32 | 41 | 12 | 46 | 22 | 17 |
| 50/80              | 190.5 | 32 | 41 | 14 | 51 | 25 | 17 |
| 63/100             | 219   | 40 | 50 | 20 | 60 | 30 | 21 |